CG-09/20/2019

JS 3/3/22

INITIAL REVIEW ENGINEERING REPORT [redacted]
PMN: 17-0400

[redacted] 11/28/2018
ENGINEER: El-Zoobi \ JAS
PV (kg/yr): [redacted] Import Only
Revision Notes / Assessment Overview: [redacted]

SUBMITTER: [redacted]

[redacted]

MSDS: Yes Label: No

Gen Eqpt: Use local exhaust ventillation. Wear safety glasses with side shields, appropriate gloves, and protective clothing and boots.

Respirator: A NIOSH approved air purifying organic vapor/acid gas cartridge respirator| with P100 particulate pre-filters is recommended when processing this material.

Health Effects: Skin burns from contact with molten material. Signs/symptoms may include burning pain, red and swollen skin, and blisters. /// Vapors and fumes liberated during hot processing with this material may cause flu-like symptoms (chills, fever, sore throat) that may not occur until several hours after exposure and typically pass within about 36 to 48 hours.

TLV/PEL:

[redacted]

CRSS :

S-H20: 1E-06 g/L @
VP: 1.0E-6 torr @
MW: <500 <1000
Physical State and Misc CRSS Info:
Proc/Form: PMN material
End Use: Destroyed. tted data: NAVG
MW = by GPC with less than 500 and less than 1000;
white to clear sheet; not soluble in water; solubility in acetone = 1000
g/L; soluble in ketones, esters, and ethers; density = 1.7-1.8
g/cc.Estimated data: high boiling point and negligible vapor pressure
and water solubility

Consumer Use: No
SAT (concerns) (11/07/2017):
Related Cases and Misc SAT Info:
Analogs:
Migration to groundwater: PMN negl
PBT rating: P3B1T1
Health: 2 Dermal, Drinking Water, Inhalation
Eco: 1 No releases to water

OCCUPATIONAL EXPOSURE RATING: 1C

NOTES & KEY ASSUMPTIONS:
Occupational exposure and environmental releases were estimated using the 9/30/2013 version of ChemSTEER tool. Input to ChemSTEER tool includes information from: the PMN submis cal properties, relevant past cases, and the GS. The SAT report lists concern for derm ation exposures. The PMN is imported for ; therefore, no MFG or PROC assessed. Th lso references the follow t cases for consi sa itter, same use); (same subm) (different submitter,); and (different submitter, /// ER assesses all releases according to the GS. and sessed releases per GS (consistent with this IRER), excep ot present all releases because of SAT concerns. and assessed releases per submission information (use sites were submitter-controlled). This IRER assessed ion es using PNOR PEL model (consistent with). and ass alation exposure from pellets (not consistent with this IRER). did not require inhalation exposures.

POLLUTION PREVENTION CONSIDERATIONS:
No Pollution Prevention information was provided by the submitter.

EXPOSURE-BASED REVIEW: No

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Use:[redacted]

Number of Sites/ Location: 8

CRI-TECH INC Hanover MA 02339

7 unknown customer sites

Days/yr: 180

Basis: Submission estimates 8 sites (1 submitter-controlled site and 7 additional customer sites with the same processes). RAD assumes 180 bt/yr based on # of exposure days [redacted] itter- and non-submitter controlled sites. CS calculates [redacted]

[redacted]

ENVIRONMENTAL RELEASES ESTIMATE SUMMARY

[redacted] uals are not assesed below b [redacted] ===> STANDARD REVIEW: the number of days of operation and the batch volume are not assessed appropriately. A larger batch volume and fewer days of operation should have been assessed (see contact report.) and therefore the assessed releases are low. However, according to CCD (Geraldine Hilton), there is no concern for ingestion. Therefore, the assessment was not revised.

Water or Incineration or Landfill
Conservative: 1.4E-1 kg/site-day over 180 days/yr from 8 sites
or 2.5E+1 kg/site-yr from 8 sites or 2.0E+2 kg/yr-all sites
to: water, incineration, or landfill (per GS)
from: [redacted] of [redacted] from Multiple Vessels
basis: EPA/OPPT Multiple Process Vessel Residual Model, CEB standard 2% residual. Per GS, as a conservative estimate it is reasonable to assume that equipment cleaning residual is disposed of to water, incineration, or landfill.

Water or Landfill
Output 2: 6.9E-4 kg/site-day over 180 days/yr from 8 sites
or 1.2E-1 kg/site-yr from 8 sites or 10.0E-1 kg/yr-all sites
to: water or landfill (per GS)
from: Dust Generation from [redacted]
basis [redacted] tion is expected
from [redacted] (0.01% loss of daily use rate, OECD 2003, based on estimates for filler additives). Particles are originally released to air but are expected to eventually settle to the ground. Dust particles are expected to be cleaned from the equipment and floor with water or disposed of directly to landfill

Water or Landfill
Output 2: 1.7E-1 kg/site-day over 180 days/yr from 8 sites
or 3.1E+1 kg/site-yr from 8 sites or 2.5E+2 kg/yr-all sites
to: water or landfill (per GS)
from: Trimming Waste
[redacted] Per GS, assumed 2.5% waste from [redacted] is representative of the industry covered in this scenario. Particles are originally released to air but are expected to eventually settle to the ground. Dust particles are expected to be cleaned from the equipment and floor with water or disposed of directly to landfill.

RELEASE TOTAL
4.5E+2 kg/yr - all sites

OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY
Tot. # of workers exposed via assessed routes: 384
Basis:

Inhalation:

Dermal:

The submission indicates that the PMN [redacted]; therefore dermal exposures not assessed during unloading processes (consistent with GS). The GS also indicates that dermal exposures not expected during coverting processes and trimming.

Exposure to Liquid at [redacted] concentration

High End:

> Potential Dose Rate: 9.0E+2 mg/day over 180 days/yr

> Lifetime Average Daily Dose: 2.8E+0 mg/day over 180 days/yr

> Average Daily Dose: 5.5E+0 mg/day over 180 days/yr

> Acute Potential Dose: 1.1E+1 mg/day over 180 days/yr

Number of workers (all sites) with dermal exposure: 384

Basis: Equipment Cleaning Losses of Liquids from Multiple Vessels; EPA/OPPT 2-Hand Dermal C [redacted] ation of chemical in water is [redacted], per Concentration of chemical in resin is unkno therefore RAD asseses [redacted] of the concentration of PMN as imported [redacted] as imported). Per November 2016 RAD guidance, default parameters for this model were updated: body weight (BW) was updated from 70 to 80 kg and Averaging Time over a Lifetime (ATc) was updated from 70 to 78 years.

[redacted]

MEMORANDUM of CBI TELEPHONE CONVERSATION

[redacted]

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[redacted]

[redacted]

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